



caBIGTM cancer Biomedical
Informatics GridTM

The Cancer Biomedical Informatics Grid® Initiative: Open Source Software Licensing Approach

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Open Source Software Workshop

CENDI Copyright Working Group

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caBIG[®] Goal

A virtual web of interconnected data, individuals, and organizations that redefines how research is conducted, care is provided, and patients/participants interact with the biomedical enterprise.

caBIG[®] Vision

- **Connect** the cancer research community through a shareable, interoperable infrastructure
- **Deploy and extend** standard rules and a common language to more easily share information
- **Build or adapt tools** for collecting, analyzing, integrating and disseminating information associated with cancer research and care

- **Open Access** – caBIG® is open to all, enabling wide-spread access to tools, data, and infrastructure
- **Open Development** – Planning, testing, validation, and deployment of caBIG® tools and infrastructure are open to the entire research community
- **Open Source** – The underlying software code of caBIG® tools is available for use and modification
- **Federation** – Resources can be controlled locally, or integrated across multiple sites



- A significant component of the caBIG® initiative is development of software tools that meet technical standards for interoperability, *i.e.*, software that can be used to connect resources internally within a laboratory, organization or institution, as well as externally among multiple collaborators.
- NCI controls compliance with caBIG interoperability standards by contract (if funded by NCI) and through exercise of trademark rights in caBIG trademarks (registered with USPTO by DHHS); only software that conforms to caBIG interoperability standards can be labeled as caBIG Software; distributors must be licensed by NCI to use the marks .
- caBIG Software developed w/ NCI funding through caBIG program must be made available subject to model caBIG open source software license agreement or an alternative license approved by NCI.
 - ***NOTE: Participants in caBIG initiative that develop software with private funds but in compliance with caBIG™ technical standards are not required to use the caBIG® license, nor an equivalent for making source code available .***

Open source distribution of caBIG® tools is consistent with policy objectives



- **NIH policies:** Research resources, including software and data, should be broadly disseminated in order to promote further research, development, and applications; broad use of these resources will ultimately benefit public health.
- **NCI mission:** The National Cancer Institute coordinates the National Cancer Program, which conducts and supports research, training, health information dissemination, and other programs with respect to the cause, diagnosis, prevention, and treatment of cancer, rehabilitation from cancer, and the continuing care of cancer patients and the families of cancer patients.

NCI's acquisition/distribution of caBIG® Software



- NCI funds development of caBIG® Software through contracts or subcontracts that require grant of a very broad royalty-free license, with the right to sublicense, in all deliverables:
 - Deliverables include software, data and other documentation
 - Software defined as all source code, object code and related documentation
 - Terms of license specified in “Rights in Data” provision of funding contract; license must be granted to NCI and the public (including other NCI contractors and subcontractors)
 - Contractors are asked to use caBIG Model Open Source License; if contractor prefers to use an alternative license template, the NCI C.O. must approve
 - License terms granted by contractor/subcontractor may not include “viral” open source provisions for derivative works (i.e., there can be no obligation on subsequent users to distribute or otherwise make available the source code of derivative works
 - Software delivered under GPL / equivalent licenses is not acceptable!!
 - Developers of NCI-funded caBIG® Software that need to bundle or integrate with components subject to viral OSS license are asked to provide instructions for end users to install those components separately.

NCI's acquisition/distribution of caBIG® Software – CONT'D



- Contractors/subcontractors upload deliverables electronically to a specified repository (**e.g.**, the NCI-hosted instance of Gforge) for review and acceptance; software deliverables must include source code and be accompanied by the appropriate model license.
- NCI receives explicit permission to make software available to public by posting on caBIG® Community Website (<https://cabig.nci.nih.gov/>)
- Developers are free to distribute through their own channels as long as they do so under the caBIG Model Open Source Software License (or an NCI-approved alternate license).
 - **The caBIG® Model Open Source Software License is available at <https://cabig.nci.nih.gov/adopt>.**

Scope of license grant in NCI caBIG®

Software development contracts



- **Contractor/Subcontractor:**
 - Acknowledges that “world-wide, free distribution of all deliverables” under contract terms is an important Government purpose for work to be performed
 - Receives advanced approval to assert copyright, but agrees to assign to the Government upon request of the NCI C.O. if necessary for the Government to protect its rights (**e.g.**, to have standing in order to litigate copyright infringement violations)
 - Grants the Government and the public (1) “unlimited rights” in all deliverables as defined in FAR 52.227-14 and (2) additional rights (detailed in next slide)
 - These rights are reflected in the terms of the caBIG® Model Open Source Software License .

Scope of license grant in NCI caBIG® Software development contracts – CONT'D



- In addition to FAR 52.227-14, Rights in Data – General and the Government purpose noted above, and notwithstanding anything to the contrary in the Subcontract, Subcontractor also agrees to grant to the Government, SAIC-F, the caBIG® Community, and the public a nonexclusive, worldwide, perpetual, fully paid up, no-charge, irrevocable, transferable and royalty-free right and license in its rights in all Deliverables, including any copyright or patent rights therein, to: (i) use, install, disclose, access, operate, execute, reproduce, copy, modify, translate, market, publicly display, publicly perform, and prepare derivative works of Deliverables in any manner and for any purpose, and to have or permit others to do so; (ii) make, have made, use, practice, sell, offer for sale, import, and/or otherwise dispose of Deliverables (or portions thereof); (iii) distribute and have distributed to and by third parties Deliverables and any modifications and derivative works thereof; and (iv) sublicense the foregoing rights set out in (i), (ii) and (iii) to third parties, including the right to license such rights to further third parties. Proprietary Technical Data and modifications or extensions of Proprietary Software not funded, developed or used in connection with the Subcontract are not subject to the provisions set forth above.

Additional Licensing Terms in NCI caBIG® Software Development Contracts



- Contractors/subcontractors may not use, incorporate or deliver proprietary software without C.O.'s permission.
- End users have no rights to use NCI-owned trademarks or the names “The National Cancer Institute” or “NCI” to endorse or promote products derived from NCI-funded caBIG® Software.
- End user documentation must acknowledge the author; if there is no end user documentation, derivative software product itself must acknowledge the author.
- Licensee is solely responsible for the consequences of incorporating caBIG® Software into third-party software.
- Express and implied warranties are disclaimed.
- NCI-funded caBIG Software may be licensed with additional restrictions that do not conflict with terms and conditions of funding for development of NCI-funded caBIG Software.

Questions??

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